Differential Gene Expression in Explanted Human Retinal Pigment Epithelial Cells 24-hours Post-Exposure to 532 nm, 3.0 ns Pulsed Laser Light and 1064 nm, 170 ps Pulsed Laser Light 12-hours Post-Exposure: Results Compendium

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## **USAFA TR 2004-01**

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## **ABSTRACT**

The use of laser light for military and commercial applications has sharply increased the likelihood of personnel exposure to laser light during operations. The increased potential for human exposure highlights the fact that there is paucity of basic science at the cell and molecular level concerning the effects of laser exposure of human cells. Current safety standards are largely extrapolations of exposure limits using a minimal visible lesion endpoint in the Rhesus monkey retinal model. A non-animal model for assessing laserlight damage to tissue, particularly human, is quite desirous for obvious scientific, political, and fiduciary reasons. We assessed the sublethal insult to human retinal pigment epithelial cells using a cadaver organ donor explant system for genes differentially expressed 12 and 24 hours post-exposure using gene expression microarray technology (gene chip). It appears that pulses of laser light are sensed and markedly alter gene expression. The two experiments presented herein are intended to add to the database of laser-tissue interaction at the molecular level using gene expression profiling as the assessment endpoint. This investigative approach also showcases a global methodology for characterizing environmental stressors on a living system via genetic profiling and hallmarks the use of human explants as an experimental model for assessing laser-induced bioeffects at the cell and molecular level. Additionally, we offer 3 conceptual cartoons outlining our vision for the future progress of laser bioeffects research, metabonomic risk assessment modeling and knowledge building from laser bioeffects data.

## **BACKGROUND**

In the interest of brevity the reader is referred to USAFA-TR 2004-01 for the background.

## MATERIALS AND METHODS

Explant procurement and processing: General overview

Tissues were received as a tissue donor gift through the Rocky Mountain Lion's Eye Bank who accomplishes all of the donor consent paperwork. Posterior globes of both eyes were harvested 8 hours post time of death and put into a 50 ml vial with approx. 25 ml of buffered saline. The tissue was transported directly to tissue culture lab where the vitreous humor and retina were mechanically removed. Then the RPE still attached to the sclera were cut into 3-5 mm square pieces. The pieces were then placed into 96 well microtiter plates (1 per well) with 150 microliters (ul) of the media (DME/F12 with 10% FBS plus antibiotics) and cultured at 37 degrees C in 5% CO2 until re-plated for

exposure. In a fresh 96 well plate the pieces were placed RPE side up centered in the well, in 50 ul media (just covers the explant) to be exposed. Explants were kept at 37 degrees until they were transported in a pre-warmed insulated box to the laser lab and exposed at room temperature in the plates on an X-Y translation stage one well at a time as quickly as possible to minimize temperature fluctuations then returned to the incubator after stereoscopic examination and the additional 100 ul of warm media. At the desired time post exposure, RPE was mechanically removed from the sclera and collected in microcentrifuge tubes, labeled and frozen at -65 degrees C. Samples were shipped frozen to the vendor with approx. 10 lbs of dry ice via overnight delivery. We accepted donors age 65 years or younger, either sex, with no mitigating ocular or retinal pathology such as glaucoma, diabetic retinopathy, retinitis pigmentosa, etc.

This report provides the results of two gene expression experiments. The first was a 532 nm, nanosecond pulse width exposure designated as N2. The second was a 1064 nm, picosecond pulse width exposure designated as P4.

## Donor:

The RPE tissue donor for N2 was a 65 year old Caucasian, blue eyed, male that died of cancer. The RPE tissue donor for P4 was a 41 year old Caucasian, blue eyed, female that died of cancer. No ocular pathologies were noted.

Explant preparation: See USAFA-TR-2004-01

Laser: Equipment Used for N2

Laser (Nd:YAG) Coherent Infinity XPO Laser

Power Meter Scientech Power Meter model S310

Detector Head Scientech model PHDX50 Shutter nmLaser model LS055S3W8

Shutter Controller nmLaser model CX2450

Velmex XY Stage model NF90-2

Laser: Equipment Used for P4

Laser (Nd:YAG) EKSPLA, model SL312T, serial number 017

Power Meter Molectron OM4001 power meter, serial number 136C Detector Head J50 Detector Head, with diffuser, serial number 1518B

Shutter nmLaser model LS055S3W8
Shutter Controller nmLaser model CX2450

Velmex XY Stage model NF90-2

In both exposures the pulse energy was determined by placing a power meter on the x-y translation stage (the site of target exposure) and dividing the measured average power by

the pulse repetition rate. This method was considered adequate since pulse-to-pulse energy typically varied less than 10%. The beam profile is a "top hat" with less than 5% variation across the wave front.

## Laser-light exposure:

For procedures see USAFA-TR-2004-01. In the table below are the exposure parameters for the experiments reported herein.

Treatment	N2	P4
Wavelength (nm)	532	1064
Average Power (mW)	508	1150
Pulse Energy (mJ)	$50.8 \pm 1.2$	$115 \pm 5$
Pulse Length (FWHM)	3.0 ns	170 ps
Total Incident Energy (mJ)	3251	3220
Peak Power (W)	$1.69 \times 10^7$	$6.76 \times 10^8$
Fluence (mJ/cm <sup>2</sup> )	108	244
Exposure Time (sec)	6.4	2.8
Laser Repetition Rate (Hz)	10	10
Beam Diameter (1/e²)	6 mm	6 mm
Irradiance (kW/m²)	18.0	40.7

Total incident energy (TIE) is defined as the amount of laser-light energy that was delivered to the 6 mm well containing the RPE explants. Abbreviations: nmnanometer; m-meter, mm-millimeter, ns-nanosecond; mJ-milliJoule; mW-milliWatt; FWHM-Full Width Half Max; Hz-Hertz; sec-second; W-watt; enatural log.

## Laser exposure of Human RPE Explants

The Nd:YAG laser light exposure regimen was based on empirical data (not shown) that established cell viability after a range of laser exposures. The exposure described above for treatment N2 was calculated to be 1.8 k J/m² which is about 10% of the MVL value and approximately 65% above the MPE for the pulse width and wavelength considered (Sliney and Wolbarsht, 1980 and ANZI Z136.1-2000 Table 5a). The exposure described above for treatment P4 was calculated to be 4.1 k J/m² which is about 16% of the MVL value and approximately 20% above the MPE for the pulse width and wavelength considered (Sliney and Wolbarsht, 1980 and ANZI Z136.1-2000 Table 5a)

In experiment N2 the cells were exposed to either 1) sham exposed to no laser-light (beam blocked upstream), or 2) 64 pulses of 532 nm visible laser-light. Each pulse containing 50.8 mJ  $\pm$  1.2 mJ (on average) of energy was delivered to a microtiter plate well 6 mm in diameter containing 50 microliters of medium. In experiment P4 the cells were exposed to either 1) sham exposed to no laser-light (beam blocked upstream), or 2) 28 pulses of 1064 nm visible laser-light. Each pulse containing 115.5 mJ  $\pm$  5 mJ (on

average) of energy was delivered to a microtiter plate well 6 mm in diameter containing 50 microliters of medium. See Figure 2 in USAFA-TR-2004-01 for a general overview of the experimental procedures.

Exposed RPE collection

Sample N2 was harvested 24 hours post-exposure for gene chip analysis; while sample P4 was harvested at 12 hours post-exposure. A "C" beginning the sample designation (i.e. CP4 or CN2) indicates the control sample for comparison. The "HX" designation indicates the use of human explanted tissue as the experimental model. See USAFA-TR-2004-01 for further procedural details.

Oligonucleotide Microarray Description Protocol and Analysis:

See USAFA-TR-2004-01.

For a complete listing of sequence sources and human array design the reader should visit Affymetrix's website at <a href="www.affymetrix.com">www.affymetrix.com</a>, Technical Note: Array Design for the GeneChip Human Genome U133 Set.

## RESULTS

The results (Appendix A and B) of a gene expression microarray are expressed in fold change in expression for one gene in the control versus the experimental samples. For example, if gene YFG is expressed four times greater in the treated cells than in the sham exposed controls, it would show a fold change of positive four (4) in Appendix A that functionally means that gene YFG mRNA was found in 4 times greater concentration in the treated cells than in the controls. Thus, we conclude that the treatment induced the genetic expression of gene YFG four times greater in the experimentally treated cells than in the shame treated cells, presumably in response as the biological effect of the treatment. Conversely, if the YFG mRNA is 4 fold less in the experimental sample that in the control then a value of -4.0 fold is calculated. The assignment of the plus or minus designations on Appendix A is a function of the algorithm in the software used to calculate the fold change. In the context of understanding the significance of fold change or fold induction of a gene, the analysis software calculates a 95% confidence level of fold change for each experiment. For this set of hybridizations labeled N2 and P4 the confidence was calculated to be +/- 1.2 for both.

Appendices A and B presents the most pertinent genes (at or above the absolute value for significance) listed in rank ordered by absolute fold change minus to plus at or above the significance value. To help clarify the interpretation of this appendix the following heading explanations are offered. Probe set: the listed name of the gene being probed. Control probe sets have been deleted from the data set in Appendix A. All signals in Appendix A have passed the quality control standards established by the manufacturer. The internal controls are used by Affymetrix to calibrate the array and as quality control

elements. Control signal: the balanced (adjusted for background) signal strength for the control sample. Exptl Signal: the balanced (adjusted for background) signal strength for the experimental sample. Control vs Exptl Fold Change: the fold change based on the comparative signal strength of the control RPE sample as compared to the experimental. This is the fold change value that is used as the endpoint value, and for further analysis in the interpretation of the differential gene expression microarray results for the designated genetic elements listed under "Probe set." Description: a brief description of the gene or EST that is represented in the probe set. The appendix obviously contains only a portion of the total number of elements probed and only those whose absolute fold change was at least at the minimum significance level or higher that has been calculated to be at or above the statistical significance of 95%.

For experiment N2 a quick survey of the Fold Change (Figure 1), Variable Bin Histogram (Figure 2) and Differential Expression Scatter Plot (Figure 3) (internal controls are not in the graph data set) and Appendix A yields the observation that RPE mRNA was above 1.2 absolute fold change in 146 of the approximately 22, 000 (approximately 0.7%) probe elements on the GEM. Of those 77 (0.4% of the total possible elements and 52.7% of the significantly expressed elements) were up-regulated. The number of genes whose expression was down regulated was markedly less. 68 (0.3% of the total possible elements and 46.6% of the significantly expressed elements) genes were down-regulated at or above significant levels. In summary, the number of significant changes in gene expression was approximately equal in the up-regulated direction versus down-regulated direction, but the greatest magnitude of change for single genes was up-regulation with over two times greater fold change.

For experiment P4 a quick survey of the Differential Expression Scatter Plot (Figure 4) (internal controls are not in the graph data set) and Appendix B yields the observation that RPE mRNA was above 1.2 absolute fold change in 408 of the approximately 22, 000 (approximately 1.9%) probe elements on the GEM. Of those 324 (1.5% of the total possible elements and 79.4% of the significantly expressed elements) were up-regulated. The number of genes whose expression was down regulated was markedly less. 83 (0.4% of the total possible elements and 20.3% of the significantly expressed elements) genes were down-regulated at or above significant levels. In summary, the greatest number of significant changes in gene expression was in the up-regulated direction (nearly 4 times), and the greatest magnitude of change for single genes (over 2 times) was also up-regulation.

## DISCUSSION

Selected genes and ESTs from Appendices A and B can be reviewed as to the physiological function and/or biological marker for which they are known whenever possible. Also note that the appendices contain ESTs that were differentially regulated by the cells post laser exposure. As of the date of the experimental analysis, the functions of the genes related to the above ESTs were not known. But recent updates of the NCBI genomic database, several ESTs in the appendices have been assigned

genetic/physiologic functions. However, other EST's that were differentially regulated functions remain unknown thus remain fertile ground for future exploration and analysis. Gene functions can easily be located through a PubMed query in the NCBI searchable database format found in the appendices.

These two experimental data sets are offered as a contribution to the continuing efforts in understanding the response of RPE to the exposure of high energy pulsed laser-light exposure using gene expression profiling 12 hours and 24 hours post-exposure. In the multi-dimensional hyper-volume of laser settings versus various tissues' response and time of response post-exposure, these can provide insights at specific matrix data points to possible perturbation to cellular physiology to include aspects of damage, repair and decreased/absent/rescued function.

## Closing

As a closing comment we offer the following observation: These are the last gene expression profile experiments using Affymetrix GeneChip technology done in the Laser and Optics Research Center, Department of Physics, United States Air Force Academy. We highly recommend that this type of work, started here, be continued to aid in understanding the effect of laser-light exposure on affected human tissue. This use of living human cadaver donor tissue marks a major step forward toward assessing the cellular perturbation to be expected in the human organism and should be strongly considered as an experimental model until such time as the tissue microarray and organotypic model technologies more closely approximate the in vivo human response. We also suggest the employment of various statistical modeling techniques such as Taguchi's to establish the relevant orthogonal contrasts in the multi-dimensional hypervolume of laser settings versus biological response endpoints to rationally define the pertinent experimental data points to appropriately model laser-tissue interaction. In the context of more in depth analysis of the gene expression data, numerous higher order software platforms offer advance analyses, some employing artificial intelligence capabilities. As a closing thought we are attaching our concepts of future laser bioeffects research directions (Figure 5), a metabonomic risk assessment model of laser tissue interaction (Figure 6), and some suggestions for the transition to knowledge building/modeling from data collection (Figure 7) in laser bioeffects research.

Figure 1.

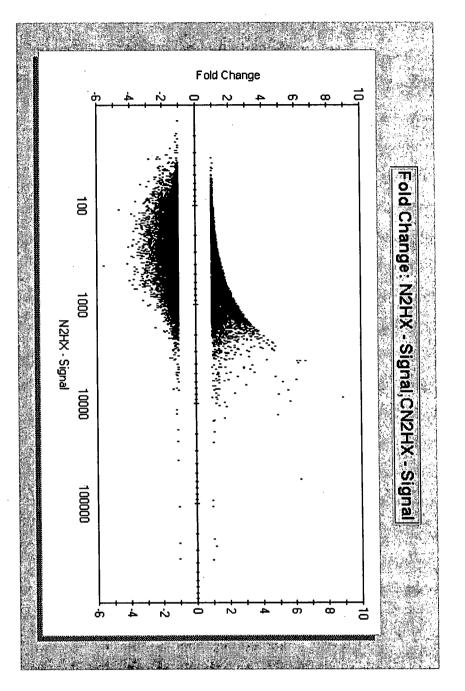


Figure 2.

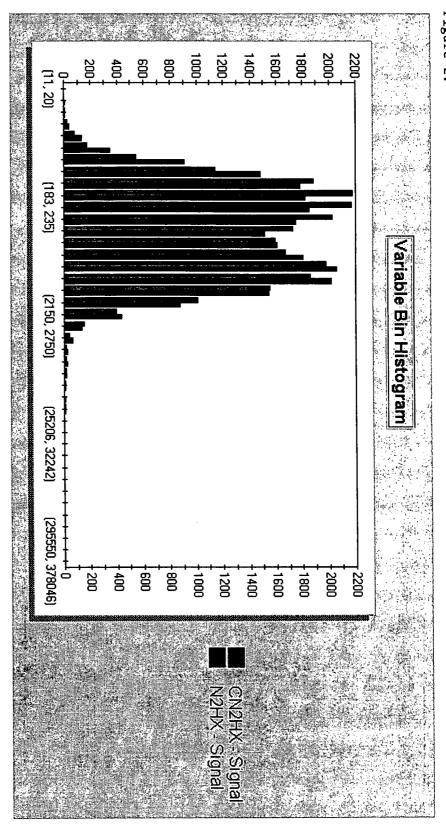


Figure 3.

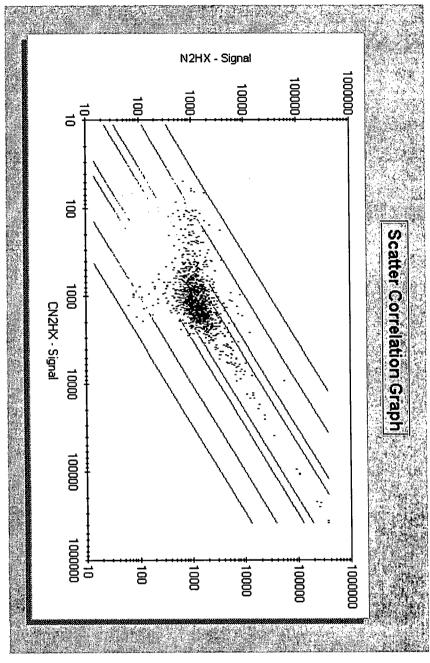
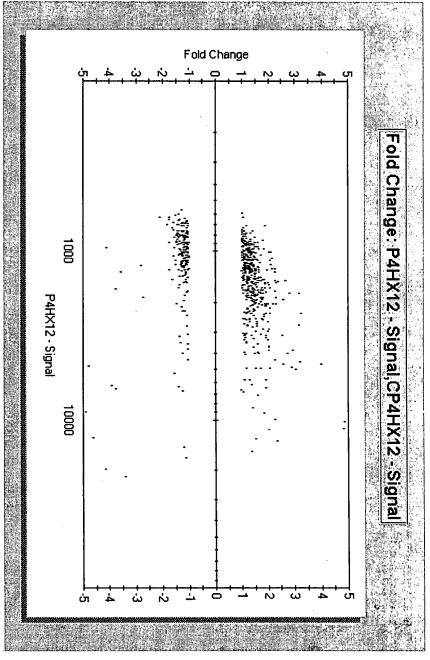
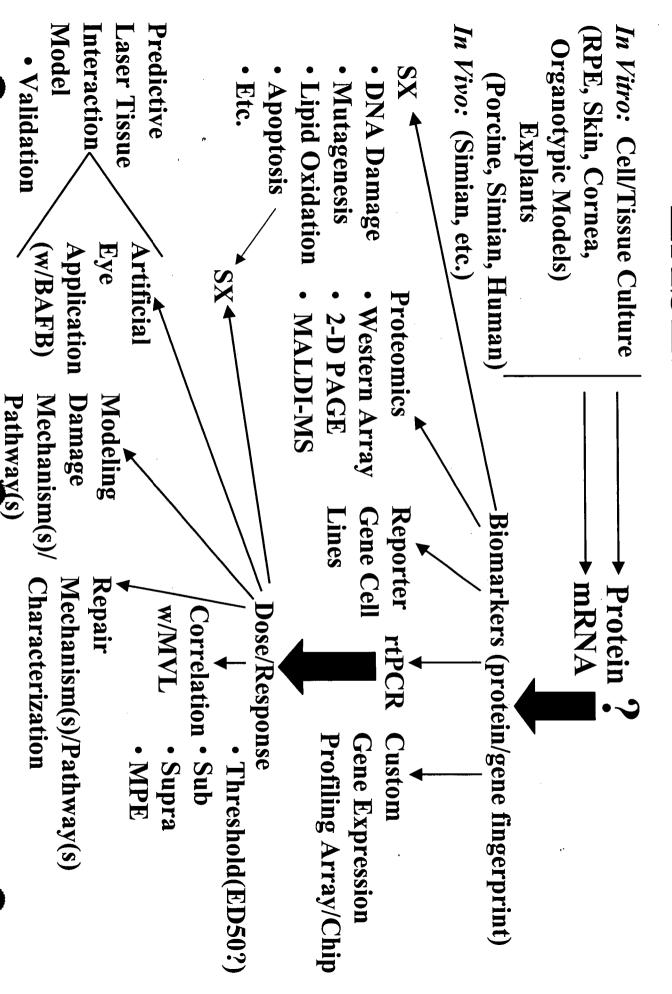


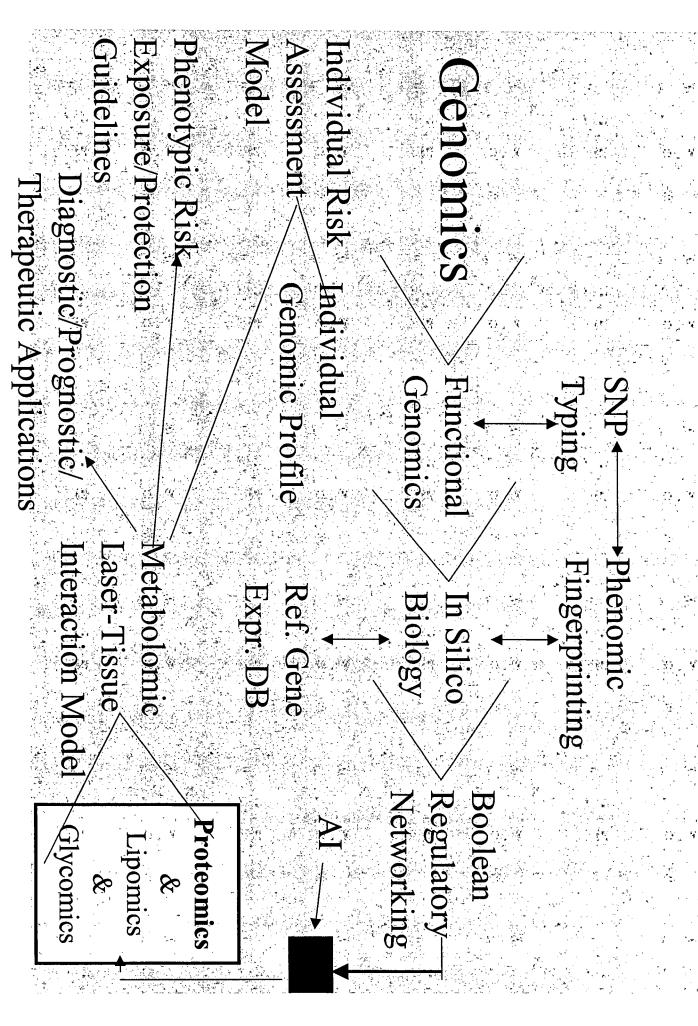
Figure 4.



## LASER BIOEFFECTS



# METABONOMIC RISK ASSESSMENT



# KNOWLEDGE BUILDING

(Transition from data collection)

- Statistical Design
- Multi-Dimensional Hyper-Volume (laser settings)
- Orthogonal Contrasts Drive Experimental Design
- Biological Endpoints
- Bioinformatics
- Integrative Platform (data mining)
- Central Repository
- Biomarker Discovery/Validation
- Retrospective Analysis-MVL
- Clinical data correlated to histo/cell/molecular data
- Exposures/Metabolic Homology/Bridging Experiments
- Collaboration=Max. Efficiency/Integration/Holism

## Appendix A.

	CN2HX	N2HX	CN2 vs N2	Description
Probe set	Signal	Signal	Fold Change	
212917_x_at	922.1	325.2	-2.84	Consensus includes gb:Al814728 /FEA=EST /DB_XREF=gi:5425943 /DB_XREF=est:wk66h11.x1 /CL
217715_x_at	2715.5	989	-2.75	Consensus includes gb:BE045142 /FEA=EST /DB_XREF=gi:8362195 /DB_XREF=est:hn26h02.x1 /C
220625_s_at	2057.1	822.4	-2.5	gb:AF115403.1 /DEF=Homo sapiens Ets transcription factor ESE-2b mRNA, complete cds. /FEA=m
214421_x_at	2212.3	980.6	-2.26	Consensus includes gb:AV652420 /FEA=EST /DB_XREF=gi:9873434 /DB_XREF=est:AV652420 /CLO
215823_x_at	1145.2	527.9	-2.17	Consensus includes gb:U64661 /DEF=Human poly(A)-binding protein processed pseudogene3 /FE
201060_x_at	2178.8	1033.6	-2.11	Consensus includes gb:Al537887 /FEA=EST /DB_XREF=gi:4452022 /DB_XREF=est:tp32g06.x1 /CLC
218807_at	2276.8	1078	-2.11	gb:NM_006113.2 /DEF=Homo sapiens vav 3 oncogene (VAV3), mRNA. /FEA=mRNA /GEN=VAV3 /PR
211504_x_at	1971.2	1023.7	-1.93	gb:D87931.1 /DEF=Homo sapiens mRNA for Rho kinase, complete cds. /FEA=mRNA /PROD=Rho k
207684_at	1584.6	837.8	-1.89	gb:NM_004608.1 /DEF=Homo sapiens T-box 6 (TBX6), mRNA. /FEA=mRNA /GEN=TBX6 /PROD=T-b
203758_at	1343.5	714.1	-1.88	Consensus includes gb:AV729484 /FEA=EST /DB_XREF=gi:10838905 /DB_XREF=est:AV729484 /CL
215112_x_at	932.7	519.2	-1.8	Consensus includes gb:AB020668.1 /DEF=Homo sapiens mRNA for KIAA0861 protein, partial cds.
208114_s_at	2260.9	1268.9	-1.78	gb:NM_030980.1 /DEF=Homo sapiens hypothetical protein FLJ12671 (FLJ12671), mRNA. /FEA=mR
213881_x_at	2545.9	1440.9	-1.77	Consensus includes gb:Al971724 /FEA=EST /DB_XREF=gi:5768550 /DB_XREF=est:wr07a04.x1 /CL
206434_at	1636.1	962.6	-1.7	gb:NM_016950.1 /DEF=Homo sapiens testican 3 (HSAJ1454), mRNA. /FEA=mRNA /GEN=HSAJ1454
202594_at	1182.6	699.7	-1.69	
204252_at	1613.4	970.3	-1.66	gb:M68520.1 /DEF=Human cdc2-related protein kinase mRNA, complete cds. /FEA=mRNA /PROD=c
217097_s_at	1040.5	629.3	-1.65	Consensus includes gb:AC004990 /DEF=Homo sapiens PAC clone RP5-1185I7 from 7q11.23-q21 /F
216801_at	2056.3	1258	-1.63	Consensus includes gb:AK026910.1 /DEF=Homo sapiens cDNA: FLJ23257 fis, clone COL05579. /FE
49327_at	3438.9	2176.6	-1.58	Cluster Incl. AI492888:th78c09.x1 Homo sapiens cDNA, 3 end /clone=IMAGE-2124784 /clone_end=
212749_s_at	1527.2	971.5	-1.57	Consensus includes gb:Al096477 /FEA=EST /DB_XREF=gi:3445971 /DB_XREF=est:qa03c06.x1 /CL
222252_x_at	3007.9	1920	-1.57	Consensus includes gb:AK023354.1 /DEF=Homo sapiens cDNA FLJ13292 fis, clone OVARC100118
207788_s_at	1566.8	1025.8	-1.53	gb:NM_005775.1 /DEF=Homo sapiens vinexin beta (SH3-containing adaptor molecule-1) (SCAM-1),
65635_at	5209.2	3401.8	-1.53	Cluster Incl. AL044097:DKFZp434M1928_s1 Homo sapiens cDNA, 3 end /clone=DKFZp434M1928 /c
207265_s_at	2283	1502.5	-1.52	gb:NM_016657.1 /DEF=Homo sapiens KDEL (Lys-Asp-Glu-Leu) endoplasmic reticulum protein rete
214222_at	1673.7	1132.2	-1.48	Consensus includes gb:AB023161.1 /DEF=Homo sapiens mRNA for KIAA0944 protein, partial cds.
214902_x_at	2298	1556.6	-1.48	Consensus includes gb:AL080232.1 /DEF=Homo sapiens mRNA; cDNA DKFZp586A061 (from clone
49878_at	3230.3	2181.2	-1.48	Cluster Incl. AA523441:ng30d08.s1 Homo sapiens cDNA, 3 end /clone=IMAGE-936303 /clone_end=
212896_at	879.8	612.4	-1.44	Consensus includes gb:D29641.2 /DEF=Homo sapiens mRNA for KIAA0052 protein, partial cds. /FE
209130_at	1213.7	845.8	-1.43	gb:BC003686.1 /DEF=Homo sapiens, synaptosomal-associated protein, 23kD, clone MGC:5155, mR
218374_s_at	1580.8	1110.2	-1.42	gb:NM_020374.1 /DEF=Homo sapiens chromosome 12 open reading frame 4 (C12ORF4), mRNA. /F
200630_x_at	2728.4	1919.4	-1.42	Consensus includes gb:AV702810 /FEA=EST /DB_XREF=gi:10719140 /DB_XREF=est:AV702810 /CL
220290_at	1399.6	997.9	-1. <b>4</b>	gb:NM_017977.1 /DEF=Homo sapiens hypothetical protein FLJ10040 (FLJ10040), mRNA. /FEA=mR

217497\_at 213226\_at 213798\_s\_at

200012\_x\_at 222370\_x\_at 56197\_at

215019\_x\_at

216187\_x\_at

220015\_at

200763\_s\_at

200662\_s\_at 208020\_s\_at

218020\_s\_at 211918\_x\_at

212261\_at

217406\_at 215607\_x\_at

215478\_at

201143\_s\_at

214034\_at

222329\_x\_at 219938\_s\_at 218143\_s\_at

206916\_x\_at

210927\_x\_at

211115\_x\_at

35150\_at 206336\_at 216993\_s\_at 203899\_s\_at

214135\_at

213612\_x\_at

214869\_x\_at 210840\_s\_at

217484\_at

Consensus includes gb:NM_005395.1 /DEF=Homo sapiens postmeiotic segregation increased 2-lik Cluster Incl. W07773:zb03g04.r1 Homo sapiens cDNA, 5 end /clone=IMAGE-301014 /clone_end=5	1561.5     1.42       5368.6     1.42		1096.5 3787.7
gb:BC006325.1 /DEF=Homo sapiens, G-2 and S-phase expressed 1, clone MGC:12560, mRNA, com			2034.3
gb:NM_031221.1 /DEF=Homo sapiens hypothetical protein FKSG63 (FKSG63), mRNA. /FEA=mRNA	8319.7 1.4		5959.6
Consensus includes gb:AK023843.1 /DEF=Homo sapiens cDNA FLJ13781 fis, clone PLACE4000465	4858.3 1.39		3502.6
Consensus includes gb:BE046461 /FEA=EST /DB_XREF=gi:8363514 /DB_XREF=est:hn47g05.x2 /C	925 1.39		666.4
X69699 /FEATURE= /DEFINITION=HSPAX8A H.sapiens Pax8 mRNA	4958.8 1.38		3601.5
Consensus includes gb:AA749101 /FEA=EST /DB_XREF=gi:2789059 /DB_XREF=est:ny11d02.s1 /C	7138 1.36		5238.3
Consensus includes gb:AK023783.1 /DEF=Homo sapiens cDNA FLJ13721 fis, clone PLACE2000450	2557.5 1.36		1875.3
gb:AF261137.1 /DEF=Homo sapiens HT031 mRNA, complete cds. /FEA=mRNA /PROD=HT031 /DB_	1872.5 1.36		1374.9
Consensus includes gb:AB023215.1 /DEF=Homo sapiens mRNA for KIAA0998 protein, partial cds.	1714.5 1.36		1262.1
Consensus includes gb:BG249565 /FEA=EST /DB_XREF=gi:12759381 /DB_XREF=est:602319636F1	2096.6 1.35	209	1552
Cluster Incl. AB015718:Homo sapiens lok mRNA for protein kinase, complete cds /cds=(50,2956) /g	1337.6 1.35		991.1
Consensus includes gb:Al688418 /FEA=EST /DB_XREF=gi:4899712 /DB_XREF=est:wc94h03.x1 /CL	899.9 1.35		666.3
gb:NM_017627.1 /DEF=Homo sapiens hypothetical protein FLJ20030 (FLJ20030), mRNA. /FEA=mR	2466.5 1.32		1864.1
gb:NM_024881.1 /DEF=Homo sapiens hypothetical protein FLJ14251 (FLJ14251), mRNA. /FEA=mR	8986.1 1.31		6875.1
Consensus includes gb:AK024958.1 /DEF=Homo sapiens cDNA: FLJ21305 fis, clone COL02124. /FE	5021.2 1.31		3831.3
Consensus includes gb:N32526 /FEA=EST /DB_XREF=gi:1152925 /DB_XREF=est:yy11f04.s1 /CLON	2928.8 1.31		2235.8
gb:NM_024305.1 /DEF=Homo sapiens hypothetical protein MGC4278 (MGC4278), mRNA. /FEA=mR	1925.3 1.31		1469.7
Consensus includes gb:AK023837.1 /DEF=Homo sapiens cDNA FLJ13775 fis, clone PLACE4000369	1877.9 1.29		1460.7
gb:NM_000923.1 /DEF=Homo sapiens phosphodiesterase 4C, cAMP-specific (dunce (Drosophila)-h	9990 1.27		7879.1
gb:BC000268.1 /DEF=Homo sapiens, proteasome (prosome, macropain) subunit, beta type, 2, clon	5656.3 1.27		4464.7
gb:NM_001530.1 /DEF=Homo sapiens hypoxia-inducible factor 1, alpha subunit (basic helix-loop-h	2154.2 1.26		1704
gb:NM_000922.1 /DEF=Homo sapiens phosphodiesterase 3B, cGMP-inhibited (PDE3B), mRNA. /FE	2110.3 1.25		1688.9
Consensus includes gb:AK023757.1 /DEF=Homo sapiens cDNA FLJ13695 fis, clone PLACE2000124	1512.8 1.25		1206.8
gb:NM_020117.1 /DEF=Homo sapiens hypothetical protein FLJ10595 (FLJ10595), mRNA. /FEA=mR	2504.9 1.23		2031.2
Consensus includes gb:AL137312.1 /DEF=Homo sapiens mRNA; cDNA DKFZp761K23121 (from clo	4515.3 1.22		3715.8
	1708.3 1.22		1402.6
gb:NM_018004.1 /DEF=Homo sapiens hypothetical protein FLJ10134 (FLJ10134), mRNA. /FEA=mR	1426.8 1.22		1165.6
Consensus includes gb:BE962749 /FEA=EST /DB_XREF=gi:11765968 /DB_XREF=est:601656143R1	1388.4 1.22		1136.1
gb:NM_013235.1 /DEF=Homo sapiens putative ribonuclease III (RNASE3L), mRNA. /FEA=mRNA /GE	1269.9 1.22	_	1044.9
gb:NM_004223.1 /DEF=Homo sapiens ubiquitin-conjugating enzyme E2L 6 (UBE2L6), mRNA. /FEA=	1937.1 1.21	·	1602.4
Consensus includes gb:X68485.1 /DEF=H.sapiens mRNA for A1 adenosine receptor. /FEA=mRNA /	1462.8 1.21	-	1209.3
Cluster Incl. AB020648:Homo sapiens mRNA for KIAA0841 protein, partial cds /cds=(0,1925) /gb=A	3560.4 -1.2		4267.1
Consensus includes gb:BG029530 /FEA=EST /DB_XREF=gi:12418626 /DB_XREF=est:602297090F1	1685.1 -1.2		2019.8

216159\_s\_at 208591\_s\_at

215383\_x\_at 217810\_x\_at

219410\_at 221158\_at

218269\_at 204517\_at 203297\_s\_at 36888\_at

216220\_s\_at 201649\_at

201404\_x\_at 206792\_x\_at

200989\_at

214473\_x\_at

55705\_at

215303\_at 215179\_x\_at

121\_at

214022\_s\_at

209927\_s\_at 215604\_x\_at 207783\_x\_at 213030\_s\_at

40420\_at

214672\_at

213507\_s\_at

212208\_at 220352\_x\_at 212607\_at

Consensus includes gb:AW276646 /FEA=EST /DB_XREF=gi:6663676 /DB_XREF=est:xr1/f12.x1 /CL	Consensus includes gb:AW276646 /FEA=EST	2.09	6
gb:AF087847.1 /DEF=Homo sapiens GABA-A receptor-associated protein like 1 (GABARAPL1) mR	gb:AF087847.1 /DEF=Homo sapiens GABA-A	2.08	ĵ.   <b>2</b>
gb:D89377.1 /DEF=Homo sapiens mRNA for MSX-2, complete cds. /FEA=mRNA /PROD=MSX-2 /DB	gb:D89377.1 /DEF=Homo sapiens mRNA for N	2.01	8
Consensus includes gb:AL524262 /FEA=EST /DB_XREF=gi:12787755 /DB_XREF=est:AL524262 /CL	Consensus includes gb:AL524262 /FEA=EST	2	4.6
Consensus includes gb:AL137798 /DEF=Human DNA sequence from clone RP5-1182A14 on chrom	Consensus includes gb:AL137798 /DEF=Hum	1.94	<b>5.9</b>
etical protein FLJ21032 (FLJ21032), mRNA. /FEA=mR	gb:NM_024906.1 /DEF=Homo sapiens hypothetical protein FLJ21032 (FLJ210)	1.9	1.6
gb:NM_018097.1 /DEF=Homo sapiens hypothetical protein FLJ10460 (FLJ10460), mRNA. /FEA=mR	gb:NM_018097.1 /DEF=Homo sapiens hypoth	1.9	9.7
62 protein (HSPC162), mRNA. /FEA=mRNA /GEN=HSP	gb:NM_014183.1 /DEF=Homo sapiens HSPC162 protein (HSPC162), mRNA. /	1.85	9.7
gb:AF130054.1 /DEF=Homo sapiens clone FLB4816 PRO1252 mRNA, complete cds. /FEA=mRNA /P	gb:AF130054.1 /DEF=Homo sapiens clone FL	<del>.`</del> æ	3.9
gb:NM_017618.1 /DEF=Homo sapiens hypothetical protein FLJ20006 (FLJ20006), mRNA. /FEA=mR	gb:NM_017618.1 /DEF=Homo sapiens hypoth	1.76	ဃ
gb:NM_012245.1 /DEF=Homo sapiens SKI-INTERACTING PROTEIN (SNW1), mRNA. /FEA=mRNA /G	gb:NM_012245.1 /DEF=Homo sapiens SKI-INT	1.75	2.3
gb:NM_001918.1 /DEF=Homo sapiens dihydrolipoamide branched chain transacylase (E2 compone	gb:NM_001918.1 /DEF=Homo sapiens dihydro	1.74	1.5
gb:AF069510.1 /DEF=Homo sapiens sodium bicarbonate cotransporter (NBC) mRNA, complete cds	gb:AF069510.1 /DEF=Homo sapiens sodium k	1.73	ਨ
gb:AF154847.1 /DEF=Homo sapiens 33 kDa Vamp-associated protein (VAMP) mRNA, complete cds	gb:AF154847.1 /DEF=Homo sapiens 33 kDa V	1.72	<u>.</u>
gb:NM_005502.1 /DEF=Homo sapiens ATP-binding cassette, sub-family A (ABC1), member 1 (ABC	gb:NM_005502.1 /DEF=Homo sapiens ATP-bii	1.66	2.4
gb:NM_031207.1 /DEF=Homo sapiens hypothetical protein HT036 (HT036), mRNA. /FEA=CDS /GEN	gb:NM_031207.1 /DEF=Homo sapiens hypoth	1.62	7.6
gb:NM_020114.1 /DEF=Homo sapiens acrosomal vesicle protein 1 (ACRV1), transcript variant 9, mR	gb:NM_020114.1 /DEF=Homo sapiens acrosor	1.6	3.9
046 protein (KIAA1046), mRNA. /FEA=mRNA /GEN=KIA	gb:NM_014928.1 /DEF=Homo sapiens KIAA1046 protein (KIAA1046), mRNA.	1.59	ယ်
gb:AF195514.1 /DEF=Homo sapiens VPS4-2 ATPase (VPS42) mRNA, complete cds. /FEA=mRNA /G	gb:AF195514.1 /DEF=Homo sapiens VPS4-2 A	1.59	9.5
gb:NM_006237.1 /DEF=Homo sapiens POU domain, class 4, transcription factor 1 (POU4F1), mRNA	gb:NM_006237.1 /DEF=Homo sapiens POU do	1.58	3.6
Consensus includes gb:BG498776 /FEA=EST /DB_XREF=gi:13460293 /DB_XREF=est:602544416F1	Consensus includes gb:BG498776 /FEA=EST	1.56	.4
gb:NM_014886.1 /DEF=Homo sapiens hypothetical protein (YR-29), mRNA. /FEA=mRNA /GEN=YR-2	gb:NM_014886.1 /DEF=Homo sapiens hypoth	1.55	6
Consensus includes gb:BF448041 /FEA=EST /DB_XREF=gi:11513102 /DB_XREF=est:7q97f09.x1 /C	Consensus includes gb:BF448041 /FEA=EST	1.54	7.6
Consensus includes gb:X58851 /DEF=Human MLC1emb gene for embryonic myosin alkaline light c	Consensus includes gb:X58851 /DEF=Human	1.54	5,
Consensus includes gb:AL581768 /FEA=EST /DB_XREF=gi:12949093 /DB_XREF=est:AL581768 /CL	Consensus includes gb:AL581768 /FEA=EST	1.53	2.4
gb:NM 005926.1 /DEF=Homo sapiens microfibrillar-associated protein 1 (MFAP1), mRNA. /FEA=mR	gb:NM 005926.1 /DEF=Homo sapiens microfil	1.52	œ :
gb:NM 007234.2 /DEF=Homo sapiens dynactin 3 (p22) (DCTN3), transcript variant 1, mRNA. /FEA=n	gb:NM 007234.2 /DEF=Homo sapiens dynacti	1.51	5
gb:U20489.1 /DEF=Human glomerular epithelial protein 1 (GLEPP1) mRNA, complete cds. /FEA=mR	gb:U20489.1 /DEF=Human glomerular epitheli	1.48	2.4
gb:NM_022335.1 /DEF=Homo sapiens hypothetical protein PRO2849 (PRO2849), mRNA. /FEA=mRN	gb:NM_022335.1 /DEF=Homo sapiens hypoth	1.47	3.7
Consensus includes gb:AL049285.1 /DEF=Homo sapiens mRNA; cDNA DKFZp564M193 (from clone	Consensus includes gb:AL049285.1 /DEF=Ho	1.46	<del></del>
gb:NM_016056.1 /DEF=Homo sapiens CGI-119 protein (LOC51643), mRNA. /FEA=mRNA /GEN=LOC	gb:NM_016056.1 /DEF=Homo sapiens CGI-119	1.44	<u></u>
an cytochrome b5 mRNA, 3 end. /FEA=mRNA /GEN=C	Consensus includes gb:M22976.1 /DEF=Human cytochrome b5 mRNA, 3 end	1.44	. <b>4</b>
gb:AB007892.1 /DEF=Homo sapiens KIAA0432 mRNA, complete cds. /FEA=mRNA /GEN=KIAA0432	gb:AB007892.1 /DEF=Homo sapiens KIAA043	1.43	∞
gb:BC001407.1 /DEF=Homo sapiens, Similar to cytochrome c-like antigen, clone MGC:2960, mRNA	gb:BC001407.1 /DEF=Homo sapiens, Similar t	1.43	 8
Consensus includes gb:AK024789.1 /DEF=Homo sapiens cDNA: FLJ21136 fis, clone CAS07469. /FE	Consensus includes gb:AK024789.1 /DEF=Ho	1.42	ō

gb:NM_012245.1 /DEF=Homo sapiens Sgb:NM_017618.1 /DEF=Homo sapiens Sgb:NM_017618.1 /DEF=Homo sapiens Sgb:AF130054.1 /DEF=Homo sapiens Clogb:NM_014183.1 /DEF=Homo sapiens Sgb:NM_018097.1 /DEF=Homo sapiens Sgb:NM_024906.1 /DEF=Homo sapiens Sgb:NM_024906.1 /DEF=Homo sapiens Sgb:NM_024906.1 /DEF=Homo sapiens Sgb:AL137798 /DEI Consensus includes gb:AL137798 /DEI Consensus includes gb:AL524262 /FE/gb:D89377.1 /DEF=Homo sapiens mRN gb:AF087847.1 /DEF=Homo sapiens G/Gonsensus includes gb:AW276646 /FE	1.72 1.73 1.74 1.75 1.76 1.8 1.85 1.9 1.9 2.01 2.08	4248.9 3279.7 4959.7 10811.6 1516.9 5764.6 1500 1436.2 2086	783.7 2887.1 746.5 690.2 997.9	208869_s_at 213936_x_at
gb:NM_012245.1 /DEF=Homo sapien gb:NM_017618.1 /DEF=Homo sapien gb:AF130054.1 /DEF=Homo sapiens gb:NM_014183.1 /DEF=Homo sapien gb:NM_014097.1 /DEF=Homo sapien gb:NM_024906.1 /DEF=Homo sapien Consensus includes gb:AL137798 /I Consensus includes gb:AL524262 /I gb:D89377.1 /DEF=Homo sapiens m gb:AF087847.1 /DEF=Homo sapiens	1.72 1.73 1.74 1.75 1.76 1.8 1.8 1.9 1.9 1.9 2.01	4248.9 3279.7 4959.7 10811.6 1516.9 5764.6 1500 1436.2	783.7 2887.1 746.5 690.2	208869_s_at
gb:NM_012245.1 /DEF=Homo sapien gb:NM_012245.1 /DEF=Homo sapien gb:AF130054.1 /DEF=Homo sapiens gb:NM_014183.1 /DEF=Homo sapien gb:NM_014097.1 /DEF=Homo sapien gb:NM_024906.1 /DEF=Homo sapien gb:NM_024906.1 /DEF=Homo sapien Gonsensus includes gb:AL137798 /I Consensus includes gb:AL524262 /I gb:D89377.1 /DEF=Homo sapiens m	1.72 1.73 1.74 1.75 1.76 1.8 1.85 1.9 1.9 1.94 2.01	4248.9 3279.7 4959.7 10811.6 1516.9 5764.6 1500	783.7 2887.1 746.5	
gb:NM_012245.1 /DEF=Homo sapier gb:NM_017618.1 /DEF=Homo sapier gb:AF130054.1 /DEF=Homo sapiers gb:NM_014183.1 /DEF=Homo sapier gb:NM_014097.1 /DEF=Homo sapier gb:NM_024906.1 /DEF=Homo sapier gb:NM_024906.1 /DEF=Homo sapier gb:NM_024906.1 /DEF=Homo sapier	1.72 1.73 1.74 1.75 1.76 1.8 1.85 1.9 1.9	4248.9 3279.7 4959.7 10811.6 1516.9 5764.6	783.7 2887.1	210319_x_at
gb:NM_012245.1 /DEF=Homo sapier gb:NM_017618.1 /DEF=Homo sapier gb:AF130054.1 /DEF=Homo sapiens gb:NM_014183.1 /DEF=Homo sapier gb:NM_018097.1 /DEF=Homo sapier gb:NM_024906.1 /DEF=Homo sapier gb:NM_024906.1 /DEF=Homo sapier	1.72 1.73 1.74 1.75 1.76 1.8 1.8 1.9	4248.9 3279.7 4959.7 10811.6 1516.9	783.7	213835_x_at
gb:NM_012245.1 /DEF=Homo sapier gb:NM_017618.1 /DEF=Homo sapier gb:AF130054.1 /DEF=Homo sapiens gb:NM_014183.1 /DEF=Homo sapier gb:NM_018097.1 /DEF=Homo sapier gb:NM_024906.1 /DEF=Homo sapier	1.72 1.73 1.74 1.75 1.76 1.8 1.85 1.9	4248.9 3279.7 4959.7 10811.6		213382_at
gb:NM_012245.1 /DEF=Homo sapier gb:NM_017618.1 /DEF=Homo sapier gb:AF130054.1 /DEF=Homo sapiens gb:NM_014183.1 /DEF=Homo sapier gb:NM_018097.1 /DEF=Homo sapier	1.72 1.73 1.74 1.75 1.76 1.8 1.85	4248.9 3279.7 4959.7	5702.1	220232_at
gb:NM_012245.1 /DEF=Homo sapiel gb:NM_017618.1 /DEF=Homo sapiel gb:AF130054.1 /DEF=Homo sapiens gb:NM_014183.1 /DEF=Homo sapiel	1.72 1.73 1.74 1.75 1.76 1.8	4248.9 3279.7	2615.6	220071_x_at
gb:NM_012245.1 /DEF=Homo sapiengb:NM_017618.1 /DEF=Homo sapiengb:AF130054.1 /DEF=Homo sapiens	1.72 1.73 1.74 1.75 1.76	4248.9	1771.8	217918_at
gb:NM_012245.1 /DEF=Homo sapiel	1.72 1.73 1.74 1.75 1.76		2358.7	211452_x_at
gb:NM_012245.1 /DEF=Homo sapie	1.72 1.73 1.74 1.75	5918.3	3369.8	208246_x_at
80.1111 _001310.1 /2-1 -1101110 -up	1.72 1.73 1.74	2182.3	1246.3	201575_at
~F.NM 004048 4 /DEF=Homo Sapiel	1.72 1.73	14071.5	8100.3	205370_x_at
gb:AF069510.1 /DEF=Homo sapiens so	1.72	3496	2020.1	210739_x_at
gb:AF154847.1 /DEF=Homo sapiens 33		1930.1	1121.1	208780_x_at
gb:NM_005502.1 /DEF=Homo sapiens /	1.66	1002.4	603.2	203504_s_at
gb:NM_031207.1 /DEF=Homo sapiens h	1.62	1427.6	881.7	221435_x_at
gb:NM_020114.1 /DEF=Homo sapiens a	1.6	1838.9	1146.1	207990_x_at
gb:NM_014928.1 /DEF=Homo sapiens F	1.59	1976.3	1245.5	203480_s_at
gb:AF195514.1 /DEF=Homo sapiens VF	1.59	1449.5	909	218171_at
gb:NM_006237.1 /DEF=Homo sapiens F	1.58	1648.6	1046.6	206940_s_at
Consensus includes gb:BG498776 /FE/	1.56	2899.4	1858.2	212284_x_at
gb:NM_014886.1 /DEF=Homo sapiens h	1.55	2536	1634.7	201922_at
Consensus includes gb:BF448041 /FE/	1.54	1817.6	1180.3	212735_at
Consensus includes gb:X58851 /DEF=h	1.54	1706.5	1106.7	216054_x_at
Consensus includes gb:AL581768 /FE/	1.53	3412.4	2227.4	212639_x_at
gb:NM_005926.1 /DEF=Homo sapiens n	1.52	2252.8	1483.7	203406_at
gb:NM_007234.2 /DEF=Homo sapiens c	1.51	2091.5	1387.3	204246_s_at
gb:U20489.1 /DEF=Human glomerular e	1.48	4012.4	2704.1	211600_at
gb:NM_022335.1 /DEF=Homo sapiens h	1.47	4313.7	2925.9	206936_x_at
Consensus includes gb:AL049285.1 /DI	1.46	6154.8	4210.6	215628 x at
gb:NM_016056.1 /DEF=Homo sapiens C	1.44	2145.1	1491.5	219206_x_at
Consensus includes gb:M22976.1 /DEF	1.44	1693.4	1179.8	215726_s_at
gb:AB007892.1 /DEF=Homo sapiens KI	1.43	10405.8	7271.8	209057_x_at
gb:BC001407.1 /DEF=Homo sapiens, Si	1.43	5675.8	3960.6	210686_x_at
Consensus includes gb:AK024789.1 /D	1.42	7190	5050.3	214715_x_at

9133.1 57937.9	201358 s at 1664.1 9562.7 5.	208845_at 1136.5 6016.2 5.	201429_s_at 2608.6 12987.4 4.	35201_at 1196.1 4106.8 3.43	200095_x_at 2102.2 6436.5 3.	200759_x_at 2062.8 5302 2.57	208855_s_at 904.2 2179.2 2.41	216989_at 685 1601.8 2.	44783_s_at 2252.2 4775.3 2.
6.34	5.75	5.29	4.98	43	3.06	57	41	2.34	2.12
Consensus includes gb:BE857772 /FEA=EST /DB_XREF=gi:10372131 /DB_XREF=est:7d62a11.x1 /C	gb:NM_016451.1 /DEF=Homo sapiens coatomer protein complex, subunit beta (COPB), mRNA. /FE	gb:BC002456.1 /DEF=Homo sapiens, voltage-dependent anion channel 3, clone MGC:1966, mRNA,	gb:NM_000998.1 /DEF=Homo sapiens ribosomal protein L37a (RPL37A), mRNA. /FEA=mRNA /GEN	Cluster Incl. X16135:Human mRNA for novel heterogeneous nuclear RNP protein, L protein /cds=(2	Consensus includes gb:AA320764 /FEA=EST /DB_XREF=gi:1973113 /DB_XREF=est:EST23183 /UG	gb:NM_003204.1 /DEF=Homo sapiens nuclear factor (erythroid-derived 2)-like 1 (NFE2L1), mRNA.	gb:AF083420.1 /DEF=Homo sapiens brain-specific STE20-like protein kinase 3 (STK3) mRNA, comp	Consensus includes gb:L13779.1 /DEF=Homo sapiens (clone H16) sperm surface protein PH-20 mR	Cluster Incl. R61374:yh15e02.s1 Homo sapiens cDNA, 3 end /clone=IMAGE-37665 /clone_end=3 /g

Probe set

CP4HX12 P4HX12 Signal Signal

CP4.vs P4
Fold Change

Description

gb:NM_004108.1 /DEF=Homo sapiens ficolin (collagenfibrinogen domain-containing lectin) 2 (hucolin) (FC	-1.25	1144.2	1429.3	207804_s_at
gb:NM_016146.1 /DEF=Homo sapiens PTD009 protein (PTD009), mRNA. /FEA=mRNA /GEN=PTD009 /PROD	-1.25	1053.4	1316	217958_at
	-1.25	1033.1	1290	201345_s_at
- 11	-1.25	1008.1	1259.4	213064_at
gb:NM_007066.1 /DEF=Homo sapiens protein kinase (cAMP-dependent, catalytic) inhibitor gamma (PKIG)	-1.26	1241.8	1565.6	202732_at
	-1.26	709	890.7	209108_at
Consensus includes gb:X96588.1 /DEF=H.sapiens mRNA for H-RYK receptor tyrosine kinase. /FEA=mRNA	-1.26	703.7	884.9	216976_s_at
Consensus includes gb:U92706 /DEF=Human rearranged immunoglobulin heavy chain (A1VH3) gene, par	-1.26	686.8	866.4	216557_x_at
Consensus includes gb:Al361805 /FEA=EST /DB_XREF=gi:4113426 /DB_XREF=est:qz24g07.x1 /CLONE=IM	-1.27	1298.2	1646.6	202379_s_at
Cluster Incl. U08438:Human beta-adrenergic receptor kinase (ADRBK1) gene /cds=(40,2109) /gb=U08438 /g	-1.27	1049.4	1331.4	38447_at
gb:BC005922.1 /DEF=Homo sapiens, Similar to islet cell autoantigen 1 (69kD), clone MGC:14523, mRNA, c	-1.27	758.1	959.7	211740_at
gb:NM_000930.1 /DEF=Homo sapiens plasminogen activator, tissue (PLAT), mRNA. /FEA=mRNA /GEN=PL	-1.28	1195	1531.3	201860_s_at
	-1.28	1180.2	1508.6	218456_at
	-1.28	1159.4	1480.3	214041_x_at
	-1.29	980.1	1260.4	203445_s_at
gb:NM_021999.1 /DEF=Homo sapiens integral membrane protein 2B (ITM2B), mRNA. /FEA=mRNA /GEN=IT	-1.3	3453.3	4498.4	217731_s_at
	-1.3	802.7	1045.1	201143_s_at
Consensus includes gb:AK022248.1 /DEF=Homo sapiens cDNA FLJ12186 fis, clone MAMMA1000824, wea	-1.31	902.9	1182.9	222230_s_at
Consensus includes gb:AL132665.1 /DEF=Homo sapiens mRNA; cDNA DKFZp566E034 (from clone DKFZ	-1.32	1569	2075.5	221478_at
gb:NM_004786.1 /DEF=Homo sapiens thioredoxin-like, 32kD (TXNL), mRNA. /FEA=mRNA /GEN=TXNL /PR	-1.32	1039.7	1377.6	201588_at
gb:NM_017821.1 /DEF=Homo sapiens hypothetical protein FLJ20435 (FLJ20435), mRNA. /FEA=mRNA /GE	-1.32	972.4	1288.2	219489_s_at
	-1.33	894.8	1191.3	209293_x_at
gb:NM_002760.1 /DEF=Homo sapiens protein kinase, Y-linked (PRKY), mRNA. /FEA=mRNA /GEN=PRKY /P	-1.33	879.7	1172.2	206279_at
	-1.34	3206.2	4309.5	203455_s_at
Consensus includes gb:Al054381 /FEA=EST /DB_XREF=gi:3322168 /DB_XREF=est:qi64d09.x1 /CLONE=IM	-1.34	813.7	1090.7	222339_x_at
Cluster Incl. Al858000:wj69b05.x1 Homo sapiens cDNA, 3 end /clone=IMAGE-2408049 /clone_end=3 /gb=	-1.35	1396.1	1890.1	44563_at
Consensus includes gb:AW470003 /FEA=EST /DB_XREF=gi:7040109 /DB_XREF=est:xr27f05.x1 /CLONE=I	-1.35	873.3	1181.2	212149_at
gb:NM_014112.1 /DEF=Homo sapiens trichorhinophalangeal syndrome I gene (TRPS1), mRNA. /FEA=mRN	-1.35	643.3	869.2	218502_s_at
gb:NM_000550.1 /DEF=Homo sapiens tyrosinase-related protein 1 (TYRP1), mRNA. /FEA=mRNA /GEN=TY	-1.36	6373.5	8659.9	205694_at
	-1.36	1285	1752.5	208942_s_at
	-1.37	1058.5	1448.4	218312_s_at
	-1.37	820.9	1124.2	206833_s_at
gb:NM_018307.1 /DEF=Homo sapiens hypothetical protein FLJ11040 (FLJ11040), mRNA. /FEA=mRNA /GE	-1.37	795.2	1087.6	218323_at
gb:U90940.1 /DEF=Homo sapiens cell-type natural killer cells Fc gamma receptor Ilc3 (Fc-gammaRIIC) mR	-1.37	759.1	1040	211395_x_at
Consensus includes gb:AF191654.2 /DEF=Homo sapiens diphosphoinositol polyphosphate phosphohydr	-1.38	1650.7	2279.7	212181_s_at

Consensus includes gb:AJ223321 /DEF=Homo sapiens RP58 gene, complete CDS /FEA=mRNA /DB_XREF	1.22	1190.7	974.8	212774_at
gb:NM_017752.1 /DEF=Homo sapiens hypothetical protein FLJ20298 (FLJ20298), mRNA. /FEA=mRNA /GE	1.22	1116.3	914.2	219771_at
gb:NM_014781.1 /DEF=Homo sapiens KIAA0203 gene product (KIAA0203), mRNA. /FEA=mRNA /GEN=KIA	1.22	1073.3	879.2	202034_x_at
gb:NM_012088.1 /DEF=Homo sapiens 6-phosphogluconolactonase (PGLS), mRNA. /FEA=mRNA /GEN=PG	1.22	968.5	795.9	218388_at
gb:NM_022375.1 /DEF=Homo sapiens oculomedin (OCLM), mRNA. /FEA=mRNA /GEN=OCLM /PROD=ocul	1.21	1546.8	1279.6	208274_at
gb:NM_006830.1 /DEF=Homo sapiens ubiquinol-cytochrome c reductase (6.4kD) subunit (UQCR), mRNA.	1.21	1529.2	1265.9	202090_s_at
Consensus includes gb:BF218804 /FEA=EST /DB_XREF=gi:11112494 /DB_XREF=est:601882315F1 /CLON	1.21	1488.3	1232.1	212297_at
gb:BC000903.1 /DEF=Homo sapiens, high-mobility group (nonhistone chromosomal) protein 2, clone MGC	1.21	1471.5	1218.8	208808_s_at
gb:NM_00536.2 /DEF=Homo sapiens inositol(myo)-1(or 4)-monophosphatase 1 (IMPA1), mRNA. /FEA=mR	1.21	1447.7	1198.1	203011_at
gb:NM_000361.1 /DEF=Homo sapiens thrombomodulin (THBD), mRNA. /FEA=mRNA /GEN=THBD /PROD=	1.21	1432	1184.7	203887_s_at
gb:NM_004447.1 /DEF=Homo sapiens epidermal growth factor receptor pathway substrate 8 (EPS8), mRN	1.21	1216	1008.3	202609_at
gb:NM_005174.1 /DEF=Homo sapiens ATP synthase, H+ transporting, mitochondrial F1 complex, gamma	1.21	1127.7	933.2	205711_x_at
gb:BC004399.1 /DEF=Homo sapiens, clone MGC:10985, mRNA, complete cds. /FEA=mRNA /PROD=Unkno	1.21	1128.2	930.7	210652_s_at
gb:U97075.1 /DEF=Homo sapiens FLICE-like inhibitory protein short form mRNA, complete cds. /FEA=mR	1.21	881.3	728.4	210563_x_at
Consensus includes gb:BF112006 /FEA=EST /DB_XREF=gi:10941619 /DB_XREF=est:7l37e05.x1 /CLONE=	1.2	1877.4	1558.5	200749_at
gb:BC001920.1 /DEF=Homo sapiens, actin, gamma 1, clone MGC:3728, mRNA, complete cds. /FEA=mRNA	1.2	1844.7	1542.4	221607_x_at
gb:NM_003477.1 /DEF=Homo sapiens Pyruvate dehydrogenase complex, lipoyl-containing component X;	1.2	1170.7	978.7	203067_at
gb:BC001282.1 /DEF=Homo sapiens, high-mobility group (nonhistone chromosomal) protein 17-like 3, clo	1.2	1135.1	944.3	209787_s_at
gb:AF180519.1 /DEF=Homo sapiens GABA-A receptor-associated protein mRNA, complete cds. /FEA=mR	-1.2	2244.7	2696.4	211458_s_at
Consensus includes gb:BC004262.1 /DEF=Homo sapiens, Similar to cactin, clone IMAGE:3609158, mRNA	-1.2	908.1	1087.8	214892_x_at
gb:L17328.1 /DEF=Human pre-TNK cell associated protein (3CI) mRNA, complete cds. /FEA=mRNA /GEN=	-1.21	1404.6	1701.2	210704_at
gb:NM_002490.1 /DEF≃Homo sapiens NADH dehydrogenase (ubiquinone) 1 alpha subcomplex, 6 (14kD, B	-1.21	1146.6	1383.4	202001_s_at
Cluster Incl. Al431902:ti26e07.x1 Homo sapiens cDNA, 3 end /clone=IMAGE-2131620 /clone_end=3 /gb=A	-1.21	1048.3	1273.4	44617_at
Consensus includes gb:AK022494.1 /DEF=Homo sapiens cDNA FLJ12432 fis, clone NT2RM1000018, highl	-1.21	806	975.3	212932_at
gb:NM_002879.1 /DEF=Homo sapiens RAD52 (S. cerevisiae) homolog (RAD52), mRNA. /FEA=mRNA /GEN=	-1.21	773.3	939.1	205647_at
U14573 Human Alu-Sq subfamily consensus sequence.	-1.22	6745.5	at 8222.3	AFFX-hum_alu_
gb:NM_003202.1 /DEF=Homo sapiens transcription factor 7 (T-cell specific, HMG-box) (TCF7), mRNA. /FE	-1.22	887.1	1084.3	205255_x_at
gb:NM_016451.1 /DEF=Homo sapiens coatomer protein complex, subunit beta (COPB), mRNA. /FEA=mRN	-1.23	4002.2	4906.6	201358_s_at
gb:NM_000398.3 /DEF=Homo sapiens diaphorase (NADH) (cytochrome b-5 reductase) (DIA1), nuclear gen	-1.23	1216.3	1491.4	201885_s_at
Consensus includes gb:Al539305 /FEA=EST /DB_XREF=gi:4453440 /DB_XREF=est:te50h12.x1 /CLONE=IM	-1.23	1018.5	1251.9	221975_s_at
Consensus includes gb:AL109923 /DEF=Human DNA sequence from clone RP3-468O1 on chromosome 2	-1.23	679.9	833.3	217094_s_at
gb:NM_001553.1 /DEF=Homo sapiens insulin-like growth factor binding protein 7 (IGFBP7), mRNA. /FEA=	-1.24	2120.6	2634.1	201163_s_at
gb:AF006516.1 /DEF=Homo sapiens eps8 binding protein e3B1 mRNA, complete cds. /FEA=mRNA /PROD	-1.24	1075.1	1330.1	209028_s_at
gb:NM_024863.1 /DEF=Homo sapiens hypothetical protein FLJ21174 (FLJ21174), mRNA. /FEA=mRNA /GE	-1.24	1070.3	1322.2	202371_at
gb:NM_016944.1 /DEF=Homo sapiens taste receptor, type 2, member 4 (TAS2R4), mRNA. /FEA=CDS /GEN	-1.24	567.7	704.8	221392_at

go. NM_000/13.1/DEF=10iii0 sapielis calciuii cilailiici, voltage repenacin; = s) poj mpim i o omanio (2000	1.20	1403.2	1.101.5	208020_s_at
	- 20	140.6	969.3	204685_S_at
Consensus includes gb:BF508639 /FEA=EST /DB_XREF=gi:1159193/ /DB_XREF=est:vg82f05 s1 /Cl ONE=IMAG ماراحت Consensus includes gb:BF508639 /FEA=EST /DB_XREF=gi:1159193/ /DB_XREF=est:vg82f05 s1 /Cl ONE=IMAG	1.28	1232.1	963.2	213712_at
Consensus includes gb:AL117354 /DEF=Human DNA sequence from clone RP5-976U13 on chromosome	1.28	1129.6	881	202194_at
gb:AF195514.1 /DEF=Homo sapiens VPS4-2 ATPase (VPS42) mRNA, complete cds. /FEA=mRNA /GEN=VP	1.28	966.8	757.5	218171_at
Consensus includes gb:AK022701.1 /DEF=Homo sapiens cDNA FLJ12639 fis, clone NT2RM4001938, highl	1.28	924.8	722	213009_s_at
	1.27	1265.1	995.1	213961_s_at
gb:NM_005032.2 /DEF=Homo sapiens plastin 3 (T isoform) (PLS3), mRNA. /FEA=mRNA /GEN=PLS3 /PROD	1.27	1255.9	987.9	201215_at
	1.27	1177.7	928.6	210689_at
gb:NM_015895.1 /DEF=Homo sapiens geminin (LQC51053), mRNA. /FEA=mRNA /GEN=LQC51053 /PRQU=	1.27	1082.9	850.7	218350_s_at
	1.27	1010.6	797.7	213300_at
gb:AF116610.1 /DEF=Homo sapiens PRO0929 mRNA, complete cds. /FEA=mRNA /PROD=PRO0929 /DB_X	1.27	976.2	767.1	218864_at
gb:NM_015878.1 /DEF=Homo sapiens antizyme inhibitor (LOC51582), mRNA. /FEA=mRNA /GEN=LOC5158	1.27	909.2	717.2	201772_at
Consensus includes gb:AW511135 /FEA=EST /DB_XREF=gi:7149213 /DB_XREF=est:hd43g08.x1 /CLONE=	1.26	1448.6	1149.4	212183_at
gb:NM_003199.1 /DEF=Homo sapiens transcription factor 4 (TCF4), mRNA. /FEA=mRNA /GEN=TCF4 /PRO	1.26	1247.5	988.9	203753_at
	1.26	1225.3	971.7	219805_at
	1.26	995.7	790.6	35201_at
gb:NM_001105.2 /DEF=Homo sapiens activin A receptor, type I (ACVR1), mRNA. /FEA=mRNA /GEN=ACVR	1.26	949.3	753.7	203935_at
	1.25	1861.3	1483.8	209277_at
	1.25	1674.6	1342.8	213583_x_at
gb:NM_004105.2 /DEF=Homo sapiens EGF-containing fibulin-like extracellular matrix protein 1 (EFEMP1),	1.25	1082.6	862.9	201843_s_at
	1.25	961.3	766.9	217127_at
gb:NM_021129.1 /DEF=Homo sapiens pyrophosphatase (inorganic) (PP), nuclear gene encoding mitochon	1.24	2766	2233.8	217848_s_at
	1.24	2282	1847	216526_x_at
gb:NM_006294.1 /DEF=Homo sapiens ubiquinol-cytochrome c reductase binding protein (UQCRB), mRNA	1.24	1812.5	1456.4	205849_s_at
_	1.24	1491.9	1202.9	201217_x_at
_	1.24	1436.5	1161.4	204440_at
-	1.24	1088.7	876.9	208881_x_at
gb:D17652.1 /DEF=Human mRNA for HBp15L22, complete cds. /FEA=mRNA /PROD=HBp15L22 /UB_XKEF	1.23	2185.9	1771	208768_x_at
gb:D89092.1 /DEF=Homo sapiens hnRNP JKTBP mRNA, complete cds. /FEA=mRNA /GEN=nnRNP JKTBP	1.23	1826.3	1481.5	209067_s_at
gb:AB040875.1 /DEF=Homo sapiens hxCT mRNA for cystineglutamate exchanger, complete cds. /FEA=m	1.23	1693.9	1381.1	209921_at
gb:NM_014928.1 /DEF=Homo sapiens KIAA1046 protein (KIAA1046), mRNA. /FEA=mRNA /GEN=KIAA1046	1.23	1396	1138.4	203480_s_at
,,,	1.22	2734.2	2240	213588_x_at
Consensus includes gb:AA749101 /FEA=EST /DB_XREF=gi:2789059 /DB_XREF=est:ny11d02.s1 /CLONE=	1.22	2152.7	1771.3	214022_s_at
Consensus includes gb:AA527502 /FEA=EST /DB_XREF=gi:2269571 /DB_XREF=est:ng41f10.s1 /CLONE=I	1.22	1763.9	1445.7	211929_at

221471\_at 215691\_x\_at 219410\_at

218283\_at

201128\_s\_at

202422\_s\_at 208180\_s\_at

201715\_s\_at

202854\_at

202693\_s\_at

211452\_x\_at

203837\_at

213134\_x\_at 200088\_x\_at 209075\_s\_at 222297\_x\_at 201891\_s\_at

203613\_s\_at

208652\_at 202657\_s\_at

220439\_at

208870\_x\_at

200733\_s\_at

209927\_s\_at 200994\_at

204135\_at 208939\_at 222112\_at 201761\_at

211983\_x\_at 210303\_at

200043\_at

201553\_s\_at 202842\_s\_at

208625\_s\_at

Consensus includes gb:Y00062.1 /DEF=Human mRNA for T200 leukocyte common antigen (CD45, LC-A).	1.4	1113.1	793.9	212588_at
Consensus includes gb:AI721229 /FEA=EST /DB_XREF=gi:5038485 /DB_XREF=est:as68c10.x1 /CLONE=IM	1.39	15395	11100.7	212869_x_at
gb:BC005127.1 /DEF=Homo sapiens, adipose differentiation-related protein, clone MGC:10598, mRNA, com	1.39	3138.9	2259	209122_at
Consensus includes gb:AL538601 /FEA=EST /DB_XREF=gi:12867040 /DB_XREF=est:AL538601 /CLONE=C	1.39	1957.7	1406.7	212852_s_at
gb:AF083420.1 /DEF=Homo sapiens brain-specific STE20-like protein kinase 3 (STK3) mRNA, complete cd	1.39	1886.8	1361.2	208855_s_at
gb:NM_005544.1 /DEF=Homo sapiens insulin receptor substrate 1 (IRS1), mRNA. /FEA=mRNA /GEN=IRS1	1.39	1174.6	845.7	204686_at
gb:NM_017523.1 /DEF=Homo sapiens XIAP associated factor-1 (HSXIAPAF1), mRNA. /FEA=mRNA /GEN=H	1.39	1160.1	835	206133_at
Consensus includes gb:AU144791 /FEA=EST /DB_XREF=gi:11006312 /DB_XREF=est:AU144791 /CLONE=	1.39	1129.6	812.9	214972_at
s hypothetica	1.39	919.4	661.1	217883_at
Consensus includes gb:BG230614 /FEA=EST /DB_XREF=gi:12725656 /DB_XREF=est:naf41b12.x1 /CLONE	1.38	1824	1317.6	213857_s_at
gb:NM_014827.1 /DEF=Homo sapiens KIAA0663 gene product (KIAA0663), mRNA. /FEA=mRNA /GEN=KIA	1.38	1590	1152.8	205788_s_at
gb:D89053.1 /DEF=Homo sapiens mRNA for Acyl-CoA synthetase 3, complete cds. /FEA=mRNA /PROD=A	1.38	1520.7	1105.8	201662_s_at
gb:BC004886.1 /DEF=Homo sapiens, ribosomal protein S17, clone MGC:11144, mRNA, complete cds. /FE	1.38	1521.5	1100.2	211487_x_at
Consensus includes gb:AK026678.1 /DEF=Homo sapiens cDNA: FLJ23025 fis, clone LNG01702, highly sim	1.38	1265.6	915	209022_at
gb:NM_018649.1 /DEF=Homo sapiens core histone macroH2A2.2 (MACROH2A2), mRNA. /FEA=mRNA /GE	1.38	1031.5	749	218445_at
gb:AF010447.1 /DEF=Homo sapiens MHC class I related protein 1 isoform C (MR1C) mRNA, complete cds	1.38	905.7	655.3	210528_at
Consensus includes gb:Al888178 /FEA=EST /DB_XREF=gi:5593342 /DB_XREF=est:wm40b09.x1 /CLONE=	1.37	6143.6	4489.1	214327_x_at
Cluster Incl. AI761506:wi61b11.x1 Homo sapiens cDNA, 3 end /clone=IMAGE-2394717 /clone_end=3 /gb=	1.37	1380.1	1007.9	50314_i_at
gb:NM_001689.1 /DEF=Homo sapiens ATP synthase, H+ transporting, mitochondrial F0 complex, subunit	1.37	1378.2	1006.1	207507_s_at
gb:NM_020414.2 /DEF=Homo sapiens DEADH (Asp-Glu-Ala-AspHis) box polypeptide 24 (DDX24), mRNA.	1.37	1294.2	947.1	200694_s_at
gb:NM_030966.1 /DEF=Homo sapiens keratin associated protein 1.3 (KRTAP1.3), mRNA. /FEA=mRNA /GE	1.37	918.9	670.3	220978_at
Consensus includes gb:BF216701 /FEA=EST /DB_XREF=gi:111110287 /DB_XREF=est:601884615F1 /CLON	1.36	2332.8	1710.3	200092_s_at
gb:NM_005625.1 /DEF=Homo sapiens syndecan binding protein (syntenin) (SDCBP), mRNA. /FEA=mRNA	1.36	2094.3	1545.1	200958_s_at
gb:NM_022735.1 /DEF=Homo sapiens golgi resident protein GCP60 (GCP60), mRNA. /FEA=mRNA /GEN=G	1.36	1711.4	1253.9	202324_s_at
gb:NM_003316.1 /DEF=Homo sapiens tetratricopeptide repeat domain 3 (TTC3), mRNA. /FEA=mRNA /GEN	1.36	1139.7	835.1	208073_x_at
Consensus includes gb:AK000684.1 /DEF=Homo sapiens cDNA FLJ20677 fis, clone KAIA4183. /FEA=mRN	1.36	1125	825.7	222209_s_at
gb:NM_006122.1 /DEF=Homo sapiens mannosidase, alpha, class 2A, member 2 (MAN2A2), mRNA. /FEA=m	1.36	1038.7	762.8	202032_s_at
gb:BC001267.1 /DEF=Homo sapiens, RAB5A, member RAS oncogene family, clone MGC:5048, mRNA, com	1.35	2328	1726.1	209089_at
gb:NM_000484.1 /DEF=Homo sapiens amyloid beta (A4) precursor protein (protease nexin-II, Alzheimer di	1.35	1884.5	1390.8	200602_at
gb:NM_004539.2 /DEF=Homo sapiens asparaginyl-tRNA synthetase (NARS), mRNA. /FEA=mRNA /GEN=NA	1.35	1308	966	200027_at
gb:M23114.1 /DEF=Homo sapiens calcium-ATPase (HK1) mRNA, complete cds. /FEA=mRNA /GEN=HK1 /D	1.35	1280.1	948.5	209186_at
Consensus includes gb:AK024108.1 /DEF=Homo sapiens cDNA FLJ14046 fis, clone HEMBA1006461. /FEA	1.35	1203.1	887.9	217052_x_at
gb:BC004908.1 /DEF=Homo sapiens, clone MGC:4655, mRNA, complete cds. /FEA=mRNA /PROD=Unknow	1.35	780	575.7	210933_s_at
gb:NM_006407.2 /DEF=Homo sapiens vitamin A responsive; cytoskeleton related (JWA), mRNA. /FEA=mR	1.34	1421.5	1063.1	200761_s_at
gb:NM_002393.1 /DEF=Homo sapiens mouse double minute 4, human homolog of; p53-binding protein (M	1.34	1009.9	752	205655_at

203423\_at

216342\_x\_at

200077\_s\_at 200834\_s\_at

213102\_at 201366\_at

217845\_x\_at 200014\_s\_at

209541\_at 221626\_at

212974\_at

201975\_at

201071\_x\_at 202391\_at 221773\_at

219077\_s\_at

204681\_s\_at 217741\_s\_at

211509\_s\_at 210705\_s\_at

218213\_s\_at

208691\_at

213037\_x\_at 208724\_s\_at

211073\_x\_at

213017\_at

206424\_at

200627\_at 207854\_at

221775\_x\_at

205434\_s\_at

41220\_at 204595\_s\_at

Consensus includes gb:AL046979 /FEA=EST /DB_XREF=gi:5435035 /DB_XREF=est:DKFZp586K0617_s1 /	1.53	4867.2	3191.3	221748_s_at
Consensus includes gb:AC004010 /DEF=Human BAC clone GS1-99H8 /FEA=CDS /DB_XREF=gi:2781385 /	1.53	2512	1647	222108_at
gb:AB037701.1 /DEF=Homo sapiens SIP1-beta mRNA for SMN interacting protein1-beta, complete cds. /F	1.53	1342.9	879.7	210779_x_at
gb:NM_005231.1 /DEF=Homo sapiens ems1 sequence (mammary tumor and squamous cell carcinoma-as	1.53	1305	855.2	201059_at
gb:BC000576.1 /DEF=Homo sapiens, quinoid dihydropteridine reductase, clone MGC:1657, mRNA, comple	1.53	1023.3	670.4	209123_at
gb:M55580.1 /DEF=Human spermidinespermine N1-acetyltransferase mRNA, complete cds. /FEA=mRNA /	1.52	2944.8	1939.2	210592_s_at
Consensus includes gb:AW190090 /FEA=EST /DB_XREF=gi:6464570 /DB_XREF=est:xl59a03.x1 /CLONE=I	1.52	1963.7	1289.6	213214_x_at
gb:NM_001967.2 /DEF=Homo sapiens eukaryotic translation initiation factor 4A, isoform 2 (EIF4A2), mRNA	1.52	1526.1	1002.7	200912_s_at
Consensus includes gb:H93013 /FEA=EST /DB_XREF=gi:1099341 /DB_XREF=est:yv07g07.s1 /CLONE=IMA	1.52	1445.2	951.6	214179_s_at
gb:NM_001511.1 /DEF=Homo sapiens GRO1 oncogene (melanoma growth stimulating activity, alpha) (GR	1.52	1336.7	877.6	204470_at
gb:NM_001418.1 /DEF=Homo sapiens eukaryotic translation initiation factor 4 gamma, 2 (EIF4G2), mRNA.	1.52	1018.2	668.4	200004_at
gb:NM_004547.2 /DEF=Homo sapiens NADH dehydrogenase (ubiquinone) 1 beta subcomplex, 4 (15kD, B1	1.51	1341.4	890	218226_s_at
gb:NM_024035.1 /DEF=Homo sapiens hypothetical protein MGC3113 (MGC3113), mRNA. /FEA=mRNA /GE	1.51	1267.7	837.1	207458_at
Consensus includes gb:AB023215.1 /DEF=Homo sapiens mRNA for KIAA0998 protein, partial cds. /FEA=m	1.51	936	617.9	214672_at
gb:U48297.1 /DEF=Homo sapiens protein tyrosine phosphatase PTPCAAX2 (hPTPCAAX2) mRNA, comple	1.5	2219.6	1476.4	208616_s_at
gb:NM_000700.1 /DEF=Homo sapiens annexin A1 (ANXA1), mRNA. /FEA=mRNA /GEN=ANXA1 /PROD=ann	1.5	1687.5	1121.9	201012_at
gb:BC001721.1 /DEF=Homo sapiens, small nuclear ribonucleoprotein D1 polypeptide (16kD), clone MGC:2	1.5	1412.2	941.3	202690_s_at
gb:AF129166.1 /DEF=Homo sapiens long-chain acyl-CoA synthetase 5 (LACS5) mRNA, complete cds. /FE	1.5	1364.7	907.1	211207_s_at
Consensus includes gb:AU149908 /FEA=EST /DB_XREF=gi:11011429 /DB_XREF=est:AU149908 /CLONE=	1.5	1080.4	722.4	212006_at
gb:NM_000999.1 /DEF=Homo sapiens ribosomal protein L38 (RPL38), mRNA. /FEA=mRNA /GEN=RPL38 /P	1.49	4029.9	2695.6	202029_x_at
Consensus includes gb:Al985751 /FEA=EST /DB_XREF=gi:5813028 /DB_XREF=est:wr76h07.x1 /CLONE=IM	1.49	2043.5	1371.3	213864_s_at
gb:NM_014495.1 /DEF=Homo sapiens angiopoietin-like 3 (ANGPTL3), mRNA. /FEA=mRNA /GEN=ANGPTL	1.49	1109.9	745.2	219803_at
gb:AF000994.1 /DEF=Homo sapiens ubiquitous TPR motif, Y isoform (UTY) mRNA, alternative transcript 3	1.49	882.3	592.5	211149_at
Consensus includes gb:BE796924 /FEA=EST /DB_XREF=gi:10218031 /DB_XREF=est:601587284F1 /CLON	1.49	827.5	555	201606_s_at
gb:NM_015507.2 /DEF=Homo sapiens EGF-like-domain, multiple 6 (EGFL6), mRNA. /FEA=mRNA /GEN=EG	1.48	1836.1	1241.7	219454_at
gb:M31159.1 /DEF=Human growth hormone-dependent insulin-like growth factor-binding protein mRNA, c	1.48	1793.5	1213.3	210095_s_at
gb:NM_002418.1 /DEF=Homo sapiens motilin (MLN), mRNA. /FEA=mRNA /GEN=MLN /PROD=motilin /DB_	1.48	1472.9	995.2	207473_at
gb:NM_001924.2 /DEF=Homo sapiens growth arrest and DNA-damage-inducible, alpha (GADD45A), mRNA	1.48	1374.6	929.5	203725_at
gb:NM_000410.1 /DEF=Homo sapiens hemochromatosis (HFE), mRNA. /FEA=mRNA /GEN=HFE /PROD=he	1.48	1273.6	860.4	206087_x_at
Consensus includes gb:AA083483 /FEA=EST /DB_XREF=gi:1625544 /DB_XREF=est:zn32a06.s1 /CLONE=I	1.47	3657.2	2495.1	214211_at
gb:NM_015920.1 /DEF=Homo sapiens 40S ribosomal protein S27 isoform (LOC51065), mRNA. /FEA=mRNA	1.47	1821.1	1237.8	218007_s_at
gb:NM_005354.2 /DEF=Homo sapiens jun D proto-oncogene (JUND), mRNA. /FEA=mRNA /GEN=JUND /PR	1.47	1752.8	1192.4	203752_s_at
	1.47	1435.6	976.5	36888_at
	1.47	1315.1	897	200738_s_at
Consensus includes gb:T87225 /FEA=EST /DB_XREF=gi:715577 /DB_XREF=est:yc81f06.s1 /CLONE=IMAG	1.47	1205	821.4	213960_at

Consensus includes gb:Al925635 /FEA=EST /DB_XREF=gl:5661686 /DB_XREF=est:W034107.XT /CLONE=IM	1.9	1637.2	862.9	212391_x_at
Collsensus includes go: bosoccor /rea-eor /pp//Arer-gr.15461616 /pp//Arer-est.ovz5469697 / /cron	1.09	2114.1	1121.2	211942_S_at
Consensus includes gb:AL551971 /FEA=EST /DB_XREF=gi:12890422 /DB_XREF=est:AL551971 /CLONE=C	1.89	705.6	372.6	213320_at
Consensus includes gb:T15777 /FEA=EST /DB_XREF=gi:517939 /DB_XREF=est:IB1875 /UG=Hs.296398 Ho	1.88	1553.8	826.1	214039_s_at
Consensus includes gb:AB020635.1 /DEF=Homo sapiens mRNA for KIAA0828 protein, partial cds. /FEA=m	1.88	1527.1	812.3	212814_at
gb:NM_021104.1 /DEF=Homo sapiens ribosomal protein L41 (RPL41), mRNA. /FEA=mRNA /GEN=RPL41 /P	1.86	9066.3	4873	201492_s_at
gb:NM_014705.1 /DEF=Homo sapiens KIAA0716 gene product (KIAA0716), mRNA. /FEA=mRNA /GEN=KIA	1.86	971.5	521.8	205003_at
gb:AF022375.1 /DEF=Homo sapiens vascular endothelial growth factor mRNA, complete cds. /FEA=mRNA	1.85	2425.1	1309	210512_s_at
gb:NM_013417.1 /DEF=Homo sapiens isoleucine-tRNA synthetase (IARS), transcript variant long, mRNA.	1.85	1475.9	796.2	204744_s_at
gb:AF313911.1 /DEF=Homo sapiens thioredoxin mRNA, complete cds. /FEA=mRNA /PROD=thioredoxin /D	1.84	2369.3	1284.6	208864_s_at
gb:NM_006999.2 /DEF=Homo sapiens topoisomerase-related function protein 4-1 (TRF4), mRNA. /FEA=m	1.83	1458.3	796.9	202466_at
Consensus includes gb:Al041204 /FEA=EST /DB_XREF=gi:3280398 /DB_XREF=est:ov77g06.x1 /CLONE=IM	1.82	856.1	470.8	213165_at
gb:NM_020651.2 /DEF=Homo sapiens pellino (Drosophila) homolog 1 (PELI1), mRNA. /FEA=mRNA /GEN=	1.81	2535.9	1401.8	218319_at
gb:BC006481.1 /DEF=Homo sapiens, tubulin alpha 1, clone MGC:4387, mRNA, complete cds. /FEA=mRNA	1.81	1875.4	1034	211072_x_at
gb:NM_016139.1 /DEF=Homo sapiens 16.7Kd protein (LOC51142), mRNA. /FEA=mRNA /GEN=LOC51142 /P	1.81	1699.8	939.3	217720_at
Consensus includes gb:AL568186 /FEA=EST /DB_XREF=gi:12922280 /DB_XREF=est:AL568186 /CLONE=C	1.8	2895.7	1607.4	213356_x_at
gb:M81635.1 /DEF=Homo sapiens erythrocyte membrane protein mRNA, complete cds. /FEA=mRNA /GEN	1.8	1762.8	980.1	201061_s_at
gb:M74921.1 /DEF=Human endothelin receptor mRNA, complete cds. /FEA=mRNA /GEN=ETs /PROD=endo	1.79	2482.4	1388.4	204271_s_at
	1.78	1890.6	1060.9	200726_at
gb:NM_000274.1 /DEF=Homo sapiens ornithine aminotransferase (gyrate atrophy) (OAT), nuclear gene en	1.77	2062.9	1162.8	201599_at
gb:NM_001685.1 /DEF=Homo sapiens ATP synthase, H+ transporting, mitochondrial F0 complex, subunit	1.77	1925.1	1089.2	202325_s_at
gb:AF005775.1 /DEF=Homo sapiens caspase-like apoptosis regulatory protein 2 (clarp) mRNA, alternative	1.77	1654.1	937	209939_x_at
gb:AF164794.1 /DEF=Homo sapiens Diff33 protein homolog mRNA, complete cds. /FEA=mRNA /PROD=Di	1.75	1872.8	1071.4	208671_at
gb:NM_001903.1 /DEF=Homo sapiens catenin (cadherin-associated protein), alpha 1 (102kD) (CTNNA1), m	1.75	1420.1	813.6	200765_x_at
_	1.74	1780.2	1022.8	208394_x_at
gb:NM_001014.1 /DEF=Homo sapiens ribosomal protein S10 (RPS10), mRNA. /FEA=mRNA /GEN=RPS10 /P	1.73	1992.4	1151.7	200817_x_at
	1.73	1484.5	859.7	215127_s_at
gb:NM_014676.1 /DEF=Homo sapiens pumilio (Drosophila) homolog 1 (PUM1), mRNA. /FEA=mRNA /GEN=	1.73	1056	609.4	201166_s_at
	1.72	4902.4	2844.6	200963_x_at
gb:AF154847.1 /DEF=Homo sapiens 33 kDa Vamp-associated protein (VAMP) mRNA, complete cds. /FEA	1.72	1703.7	989.6	208780_x_at
gb:NM_005875.1 /DEF=Homo sapiens translation factor sui1 homolog (GC20), mRNA. /FEA=mRNA /GEN=	1.71	3115.5	1818.7	201738_at
gb:NM_025258.1 /DEF=Homo sapiens NG37 protein (G7C), mRNA. /FEA=CDS /GEN=G7C /PROD=NG37 pro	1.69	1492.6	883.1	221301_at
Consensus includes gb:Al814252 /FEA=EST /DB_XREF=gi:5425467 /DB_XREF=est:wj70g04.x1 /CLONE=IM	1.69	1164.2	687.8	213020_at
Consensus includes gb:BF033313 /FEA=EST /DB_XREF=gi:10741025 /DB_XREF=est:601458002F1 /CLON	1.68	1747.8	1040.3	212426_s_at
gb:NM_005759.1 /DEF=Homo sapiens abl-interactor 12 (SH3-containing protein) (AIP-1), mRNA. /FEA=mR	1.67	1335.2	800	207268_x_at

gb:NM_000561.1 /DEF=Homo sapiens ribosomal protein La (KFLa), illikiva. /FEA=liikiva /GEN=KFLa/FKO gb:NM_003720.1 /DEF=Homo sapiens Down syndrome critical region gene 2 (DSCR2), mRNA. /FEA=mRNA	3.4 2.28	4380.1 1323.4	1928.9 581.2
		2042.9	929.6
gb:AB022435.1 /DEF=Homo sapiens LIG mRNA for E2 ubiquitin-conjugating enzyme, complete cds. /FEA		1100.8	507.3
Consensus includes gb:AB028949.1 /DEF=Homo sapiens mRNA for KIAA1026 protein, partial cds. /FEA=m		1278.9	595.6
gb:NM_005520.1 /DEF=Homo sapiens heterogeneous nuclear ribonucleoprotein H1 (H) (HNRPH1), mRNA.	5.3 2.13	1015.3	477.7
gb:NM_003819.2 /DEF=Homo sapiens poly(A)-binding protein, cytoplasmic 4 (inducible form) (PABPC4), m	3.8 2.11	1198.8	568.3
Consensus includes gb:AA320764 /FEA=EST /DB_XREF=gi:1973113 /DB_XREF=est:EST23183 /UG=Hs.76		4908.5	2342.5
gb:M26700.1 /DEF=Human mitochondrial ubiquinone-binding protein mRNA, complete cds. /FEA=mRNA /		2328.6	1107.6
gb:NM_014233.1 /DEF=Homo sapiens upstream binding transcription factor, RNA polymerase I (UBTF), m	3.6 2.1	1126.6	536.8
gb:NM_012286.1 /DEF=Homo sapiens MORF-related gene X (KIAA0026), mRNA. /FEA=mRNA /GEN=KIAA0	2.07	2887	1398
gb:NM_000983.1 /DEF=Homo sapiens ribosomal protein L22 (RPL22), mRNA. /FEA=mRNA /GEN=RPL22 /P		2166.4	1047.8
Cluster Incl. AL120554:DKFZp761B169_s1 Homo sapiens cDNA, 3 end /clone=DKFZp761B169 /clone_end		1655.1	799.2
Consensus includes gb:BF125158 /FEA=EST /DB_XREF=gi:10964198 /DB_XREF=est:601762392F1 /CLON		11421.8	5532.5
Consensus includes gb:BF026595 /FEA=EST /DB_XREF=gi:10734307 /DB_XREF=est:601672736F1 /CLON		1581.2	769
gb:NM_005594.1 /DEF=Homo sapiens nascent-polypeptide-associated complex alpha polypeptide (NACA		3635.4	1773.5
Consensus includes gb:NM_005953.1 /DEF=Homo sapiens metallothionein 2A (MT2A), mRNA. /FEA=CDS		3822.5	1875.1
Consensus includes gb:BF976260 /FEA=EST /DB_XREF=gi:12343475 /DB_XREF=est:602245139F1 /CLON		3674.5	1804.2
Consensus includes gb:X98743.1 /DEF=H.sapiens mRNA for RNA helicase (Myc-regulated dead box prote		1011.5	496.3
gb:NM_012329.1 /DEF=Homo sapiens monocyte to macrophage differentiation-associated (MMD), mRNA.	3.2 2.01	1536.2	765.7
gb:NM_000971.1 /DEF=Homo sapiens ribosomal protein L7 (RPL7), mRNA. /FEA=mRNA /GEN=RPL7 /PRO		3349	1676.7
gb:L05095.1 /DEF=Homo sapiens ribosomal protein L30 mRNA, complete cds. /FEA=mRNA /PROD=riboso	3.5 2	2983.5	1489.1
gb:NM_003330.1 /DEF=Homo sapiens thioredoxin reductase 1 (TXNRD1), mRNA. /FEA=mRNA /GEN=TXNR		2599	1298.5
Consensus includes gb:Al826799 /FEA=EST /DB_XREF=gi:5447470 /DB_XREF=est:wk56d07.x1 /CLONE=I		2041	1026
Consensus includes gb:AW500009 /FEA=EST /DB_XREF=gi:7112213 /DB_XREF=est:UI-HF-BN0-aki-e-09-0	3.7 1.98	1283.7	647.7
gb:BC000523.1 /DEF=Homo sapiens, Similar to ribosomal protein S24, clone MGC:8595, mRNA, complete		2055.2	1051.5
gb:BC002398.1 /DEF=Homo sapiens, nucleophosmin (nucleolar phosphoprotein B23, numatrin), clone MG		2305.7	1186.6
Consensus includes gb:AW007532 /FEA=EST /DB_XREF=gi:5856310 /DB_XREF=est:ws52h07.x1 /CLONE=		6398.2	3320.9
Consensus includes gb:BG537190 /FEA=EST /DB_XREF=gi:13528922 /DB_XREF=est:602565589F1 /CLON	7.9 1.93	2077.9	1074.3
gb:NM_006290.1 /DEF=Homo sapiens tumor necrosis factor, alpha-induced protein 3 (TNFAIP3), mRNA. /		1735.9	900.9
gb:NM_001025.1 /DEF=Homo sapiens ribosomal protein S23 (RPS23), mRNA. /FEA=mRNA /GEN=RPS23 /P		5750.3	2997.9
gb:BC005299.1 /DEF=Homo sapiens, cytochrome c, clone MGC:12367, mRNA, complete cds. /FEA=mRNA		3248.8	1692.1
gb:NM_000165.2 /DEF=Homo sapiens gap junction protein, alpha 1, 43kD (connexin 43) (GJA1), mRNA. /F	<b>.</b>	3142.6	1642.1
Consensus includes gb:AA725102 /FEA=EST /DB_XREF=gi:2742809 /DB_XREF=est:ai08h05.s1 /CLONE=1		2110	1103.9
gb:NM_013341.1 /DEF=Homo sapiens hypothetical protein (PTD004), mRNA. /FEA=mRNA /GEN=PTD004 /P	0.4 1.91	2030.4	1063.7

202347\_s\_at 217739\_s\_at 200032\_s\_at 203405\_at

201031\_s\_at 213478\_at

201064\_s\_at

209066\_x\_at 200095\_x\_at

201994\_at 202692\_s\_at

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